



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,349	07/08/2003	Oleg Morenko	2993-491US PJF/rl	7842
32292	7590	07/26/2005		
OGILVY RENAULT LLP (PWC) 1981 MCGILL COLLEGE AVENUE SUITE 1600 MONTREAL, QC H3A 2Y3 CANADA			EXAMINER CASAREGOLA, LOUIS J	
			ART UNIT 3746	PAPER NUMBER

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/614,349	<b>Applicant(s)</b> MORENKO, OLEG	
	<b>Examiner</b> Louis J. Casaregola	<b>Art Unit</b> 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21 is/are allowed.
- 6) ☒ Claim(s) 1,2,9,11,12,19 is/are rejected.
- 7) ☒ Claim(s) 3-8,10,13-18,20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

***Claim Rejections - 35 USC 102***

Claims 1, 2, 9, 11, 12, and 19 stand rejected under 35 USC 102(b) as being anticipated by Holsapple et al (US Pat. 5,392,596)

As pointed out in the previous Office action, the claimed gas turbine and related combustor read on prior art turbomachines of the type disclosed by Holsapple. Attention is called to Holsapple's Figure 1, which shows a turbine engine comprising compressor section 16, turbine section 18, and combustor section 20. Attention is additionally called to Figure 2, which shows combustor mounting apparatus having joints formed by balls 182 and 206 in combination with corresponding spherical indents 178 and 202. A spring 208 holds each ball in place and thus establishes a longitudinal joint axis in the direction of spring compression. Each ball and its related indent, moreover, cooperate to define mating convex and concave surfaces having curvature in mutually orthogonal planes and rotational freedom about plural transverse axes as specified by the present claims. Note also that compression of spring 208 will further accommodate translation along the longitudinal axis as required by claims 2 and 12.

***Arguments***

Applicant's arguments have been considered but are not effective in demonstrating that the rejected claims are patentable over the cited prior art.

Applicant emphasizes that the stated purpose of Holsapple's combustor mounting structure is to apply an axially compressive force to seal and allow thermal expansion, rather than to locate and support the combustor. This line of argument however is not persuasive. Holsapple's stated purpose related to the application of compressive force does not in any way preclude the performance of combustor support and locating functions. Uneven thermal expansion would in fact cause the downstream end of Holsapple's combustor to become twisted and misaligned if his downstream mounting structure did not provide at least some degree of support and locational integrity. Furthermore, as pointed out in the rejection, Holsapple's combustor mounting apparatus includes the same set of broadly recited structural features recited in the present claims. If the claimed mounting apparatus is capable of performing combustor support and locating functions, then the structurally identical apparatus in the prior art must be presumed equally capable.


Applicant further states that Hosapple's use of spherical components is based on ease of manufacture rather than functional necessity, and that spring washers and/or wave springs could have been used for the same purpose. This line of argument is not well taken. The prior art is applied for the structure that it fairly shows, and the existence of potential alternatives for certain features is irrelevant.

Art Unit: 3746

***Allowable Subject Matter***

Amended claim 21 is allowed. Claims 3-8, 10, 13-18, and 20 also contain allowable subject matter but are objected to as depending from rejected parent claims. If rewritten in independent form, these claims will be additionally be allowed.

L. J. Casaregola  
571-272-4826 (M-F; 7:30-4:00)  
703-872-9306 FAX  
July 18, 2005

  
LOUIS J. CASAREGOLA  
PRIMARY EXAMINER

If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Timothy Thorpe, can be reached at 571-272-4444.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).